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ABSTRACT

Grade 3 and grade 4 classrooms in a California bilingual Spanish/English environment were studied. In the first study, reading lessons were observed and analyzed in a bilingual classroom. Using the analysis of this experience, in the second study a series of theory-driven experimental interventions were initiated. It was found that the achievement of Spanish language dominant students in English language lessons is underestimated. However, it is possible to reorganize these same lessons to advance the students' academic performance. Some of the student selection and placement procedures used in bilingual education programs make it difficult for teachers and students to take full advantage of their respective skills and resources. Similarly, it is possible to reformulate these procedures in a way that goes beyond reliance on English language proficiency assessments. Teaching situations should be based on the children's oral skills in English and their reading skills in Spanish. For monolingual Spanish students, reading lessons should be initiated in Spanish only when instruction in English as a second language is begun. It is vital that the teacher be bilingual for all of these program interventions, or that a bilingual teacher's aide be present to assist a monolingual teacher. (RW)

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Bilingual Communication Skills in Classroom Contexts

Final Report - NIE-G-80-0155

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Preface

Submission of this report fulfills the final reporting requirement of NIE Grant No. 80-0155. This investigation involved the direct examination and scrutiny of classroom contexts where teaching and learning take place. As such the study entailed the cooperation and help of many people. It is with pleasure that we acknowledge their assistance.

We are extremely grateful to the teachers and students who allowed us to observe and videotape their actions. Their unselfishness and patience made this work possible. Our warmest thanks also go to our colleagues at the Laboratory of Comparative Human Cognition for the many discussions that benefitted our work. In particular, we would like to express our appreciation to Michael Cole, Peg Griffin and Hugh Mehan for their comments and assistance in the preparation of this and other related manuscripts. Our thanks also to Ed Fuentes of the National Institute of Education for his helpful comments on an earlier draft of this report.

Finally, very special thanks to Rosa Diaz and Victor Resendez for facilitating our research efforts and to Alma Salcido, Karen Fiegener and Peggy Bengel for helping us so much with the day to day struggles.

Introduction

For the past 15 years bilingual education programs have been widely implemented as alternatives to traditional, English-only instruction for language minority students. Evaluations of the overall effectiveness of such programs, however, have been mixed (e.g., American Institute for Research, 1977), particularly when gains in achievement test scores for basic skills are the primary or sole index of success. Critics of the programs cite these evaluations as justification for putting an end to bilingual education. Critics of the evaluations have argued that they are based on too narrow a perspective of programmatic outcomes. More importantly, reports of negative outcomes give educators and policymakers too little useful information about the pedagogical practices involved in the effective implementation of such programs (Center for Applied Linguistics, 1977; Cummins, 1977; Intercultural Development Research Association, 1977; Labelle, Moll & Weisner, 1979; Paulston, 1977). Moreover, the existence of successful programs continues to tantalize pedagogues and policy makers interested in improving the education of language minority students (Juarez and Associates, 1982; Tikunoff, 1982).

To gain a better understanding of the inner working of bilingual classrooms, recent studies have turned to ethnographic and other observational approaches that directly examine classroom activities (Cohen, 1981; Guthrie, 1982; Juarez and Associates, 1982; Tikunoff, 1982; Wong Fillmore, 1982). Although these _in situ_ studies were conducted under diverse conditions (ranging from preschools to secondary settings) and for different purposes (from identifying optimal language learning situations to assessing a science curriculum) all point to the _social organization of instruction_ as a major

determinant of an effective bilingual education program. This conclusion is consistent with results from microethnographies of schooling conducted in monolingual, but ethnically diverse classrooms, which suggest that the organized character of the social interactions that make up classroom events has important consequences for students (e.g., Au, 1980; Erickson & Shultz, 1977; McDermott, 1976; Mehan, 1978, 1979).

A shortcoming of microethnographic approaches is the absence in them of an explicit theory of learning that could specify how academic consequences (e.g., test scores) are mediated by the interactional patterns these studies so aptly describe (cf., Erickson, 1982). As a means of reconciling evaluation studies and microethnography we have adopted a socio-cultural approach to cognitive psychology (Laboratory of Comparative Human Cognition, 1982; Vygotsky, 1978). This interactional theory of learning is a powerful supplement to microethnography because it specifies practical steps to demonstrate how interactions among people are central to individual learning and development. As we will discuss, from an amalgam of these two perspectives, learning is simultaneously and inseparably a cognitive and social process.

This Final Report describes the research that led us to adopt these theoretical formulations. It includes two distinct but interrelated studies. In the first study we observed and analyzed reading lessons as they are organized in an ongoing bilingual program, interfering as little as possible with the situation as observed. Using the analysis of the lessons as a base, in the second study we implemented a series of "theory-driven" experimental interventions designed to take advantage of the students' skills in Spanish in

creating effective teaching-learning environments in English. [1] Essentially, our research shows that the achievement of Spanish language-dominant students is underestimated seriously in English-language lessons; however, we also demonstrate that it is possible, using extant resources, to reorganize these same classroom lessons to advance the level of these students' academic performance. We argue that some of the student selection and placement procedures used in bilingual education programs make it difficult for teachers and students to take full advantage of their respective skills and resources. At the end of this report we present a reformulation of ability grouping for bilingual (reading) education that goes beyond reliance on English language proficiency assessments. Our scheme incorporates the students' native language abilities in both speaking and reading along with the teacher's resources in both languages. We believe that the strongest evidence for our claims was our ability to intervene effectively in the reading education of the children with whom we worked.

Theoretical Framework

Our research was influenced by two theoretical approaches based on the notion that teaching and learning is accomplished through a system of interactions. They are, respectively, the "microethnographic" approach to the study of schooling and the "socio-cultural" approach to the study of learning and development. Both approaches focus on the actual teaching-learning process

1. The first study, reported in detail elsewhere (see Final Report NIE-G- 79-0024), provided the essential, preliminary analysis to the lesson interventions described in this report. The present study, in fact, was designed to build directly on our previous work in the same school. Therefore, as part of this report, we have opted to also present a summary of the initial study's findings to provide the reader with a more coherent and complete account of the research activities reported here.

and, when combined, provide us with systematic ways to study the content and organization of learning sessions, identify areas of difficulty, and design interventions for beneficial change.

In this section, we review basic elements of both approaches. Since the literature on classroom ethnographies or microethnographies is readily available (see Green, 1982; Griffin & Shuy, 1978; Mehan, 1979; for reviews) and relatively well-known, we only provide an overview while concentrating on a more detailed discussion of the ideas that form the socio-cultural perspective.

The microethnographic approach

Microethnographers study people's actions and the concrete circumstances under which these actions take place. A basic premise of microethnographic studies is that social events such as classroom lessons are interactional accomplishments. This emphasis leads to a view of a person an an active, creating part of his or her environment. That is, the focus of study is on concerted activity (behaving) rather than on the individual as an agent of action apart from the environment. Hence, a primary goal of microethnographic studies is to describe lessons or other important educational events by characterizing the interactional work of the participants that assemble these events (see, for example, Au, 1980; Erickson & Mohatt, 1982; Erickson & Shultz, 1977; Griffin & Shuy, 1978; McDermott & Roth, 1980; Mehan, 1979; Shultz, Florio & Erickson, 1980).

Microethnographers seek to study participant activities as part of the context in which they occur. From this perspective, context is not limited to the physical location or the characteristics of the participants, although these are clearly influential. Context is constituted by what the participants are doing, which is only partly conditioned by where and when they are doing it (Erickson & Shultz, 1977; McDermott & Roth, 1980). This interactional approach to context is particularly attractive in the study of classrooms where students and teachers may differ ethnically, and speak two or more languages with various degrees of fluency (see Moll, 1981). It provides a systematic way to analyze the communication systems set up by the teacher in order to implement classroom lessons under varying conditions, while also taking into account that whatever the students do influence the teacher and that they are both largely influenced by, and in turn construct, the context in which their interaction takes place (cf., Watzlavick, Beavin & Jackson, 1967).

The socio-cultural approach

Like microethnographers, the socio-cultural school of psychology emphasizes that interactions (communication) between people are central to how learning and development occurs (for a review, see Wertsch, 1979). Vygotsky expressed this relationship between social activity and individual cognitive development in the general law of cultural development, the proposal that any higher psychological function (e.g., reading and writing) appears

> "...twice, or on two planes. First it appears on the social plane and then on the psychological plane. First it appears between people as an interpsychological category and then within the individual child as an intrapsychological category." (Vygotsky, 1978, p. 57.)

Vygotsky (1978) argued that as children internalize the kind of help they receive from others, they eventually come to use the means of guidance initially provided by the others to direct their own subsequent problem solving behaviors. That is, children must first perform the appropriate behaviors to complete a task (e.g., reading) under someone else's guidance and direction (e.g., the teacher), before they can complete the task competently and independently. This shift in control of the task constitutes learning. To say that a child is working independently is equivalent roughly to saying that the child is carrying on "in his head" an interaction shaped by those which previously had been carried out with others. Since instructional activities are constructed so that these shifts in the control of the task can occur, the unit of analysis becomes the act or system of acts (interactions) by which learning is composed (Leont'ev, 1973; Talyzina, 1978, 1981).

Vygotsky called systems of interactions such as those embodied in many instructional tasks, zones of proximal development. He defined this zone as

> ...the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (1978, p. 86).

Applied to the study of formal learning environments such as classroom reading lessons, the student's entering skills as perceived by the teacher and the instructional materials present for use in the lesson combine to set the lower boundary of the zone. The kinds of skills that teachers want the child to master and the embodiment of those skills in the instructional materials used in a lesson constrain the upper end of the zone. The way the teacher organizes interactions between children and text in order to move them from lower to higher levels of the zone (i.e., "reading level") is "teaching-learning",

and is the focus of our attention.

Soviet researhcers have identified other characteristics of zones of proximal development that are important for the study of bilingual classrooms. The first derives from Vygotsky's view of the relation between learning and development. Vygotsky (1978) insisted that learning and development are part of a single, interactive process in which learning is transformed into development, and development produces the foundation for further learning. In instructional activity, zones of proximal development should be constructed precisely so that learning can precede development (or as Cazden, 1981, put it, performance appears before competence). Teaching which is oriented toward developmental levels that have already been reached is likely to be ineffective Good teaching provides students with learning experiences which are in advance of development while maintaining their active participation in the interactions. From this perspective, the temporal parameters of teaching-learning are essential. That is, instruction should be prospective, it should create a zone of proximal development. [2] If instruction trails behind development rather than coaxing it along, it becomes ineffective. Likewise, if instruction runs too far ahead, confusion will result (Siegler & Richards, 1982).

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2. This does not mean that the Soviets reject "drill and practice." As early as 1939, Zaporozhets discussed the necessity for drill and practice as a means of consolidating ("operationalizing") important subskills. But the orientations of the activity cannot be at this level, or "rote" learning results (see Zaporozhets, 1939/1980).

Talyzina (1978, 1981) points out that instruction exercises its leading (proximal) role through the content of the knowledge to be acquired, but that the content does not produce its developmental effect directly; it is always mediated through the teacher who distributes tasks and regulates student communicative/learning activities. Hence, the teacher's organization of lessons appropriate in terms of content and the student's developmental level create the proximal learning conditions, but it is the actual teacher-student interaction around these conditions which gives instruction its developmental effect. Seen from this perspective, we can appreciate the complexity of the teacher/student roles, since each school subject has its own specific relationship to the child's level of development. The relationship varies as the child goes from one level of achievement to another, and in the case of bilingual instruction, from one linguistic context to another. The teacher-student interactions must be adjusted depending on the conditions these relationships create.

The use of this socio-cultural/interactional approach to the study of schooling influences our observations in at least three important ways. As Dowley (1979) and microethnographers have pointed out, one does not look for the origins of intellectual skills inside the teacher or the child; instead, one looks at the child-adult interactional system. To this we would add that these interactions have to be studied in relation to the content and the objectives of the specific lessons, since it is the relationship between content, the child's entering skill level and the goals of the lesson that sets the basis for creating effective zones of proximal development. Finally, one looks for evidence that particular lessons are providing the kinds of interactions that should, theoretically, be the basis of learning, i.e., that

effective zones are created.

Study I: The Organization of Bilingual Reading Lessons

Consistent with the conceptual origins of our project in microethnography and socio-cultural cognitive psychology, our primary research strategy has been to contrast different contexts of instruction in order to specify teaching/learning activities as they interact with the content of the lesson and the characteristics of the participants. To accomplish this analysis, we videotaped bilingual reading groups as they engaged in their daily lessons in both Spanish and English.

We conducted the study in third and fourth grade classrooms in a school south of San Diego. The school features a bilingual program from the first to the fourth grade which emphasizes academic development in both Spanish and English. The students spend part of the day receiving academic instruction (e.g., reading lessons) in a Spanish-language classroom and then go to an adjacent classroom for academic and oral language instruction in English. Thus, we were able to observe and videotape the same children participating in reading lessons in separate language and instructional settings. This particular instructional arrangement allowed us to unpackage for analysis different elements of a bilingual program that are easily confounded in more typical self-contained classrooms. In the classroom lessons described below, the Spanish-language teacher is female and a fluent bilingual; her English-language counterpart is a male, English-monolingual speaker. All of the students are Spanish-dominant bilinguals. Our data draws from over 20 hours of videotaped classroom events.

We began our analysis by segmenting the videotaped lessons into sequential units to facilitate a careful and detailed description of the reading lessons. This segmenting allowed us to establish the different tasks that constitute lessons for each ability group within each language setting. Along with a description of tasks for each lesson, we specified the different communicative events organized by the teachers to teach the content of the lesson. These events are sequential and collaboratively assembled by the teacher and students. Sequences include the initiation of questioning by the teacher and the complementary answering of questions by the students, as well as subsequences in which students are required to find a word on a page and read it. We also examined sequences for the content and social distribution of specific educational tasks (see Moll, Estrada, Diaz and Lopes, 1980).

Our analysis proceeded in two directions. First, we focused on three different teacher-defined ability groups within each classroom setting. These ability-level contrasts are extremely important because ability group (and individual) distinctions are the foundation on which curriculum implementation is built; the selection of children is matched with educational materials and activities to create the lesson plan, in our terms the teacher's "blueprint" for the zones of proximal development that s/he wants to create.

Second, we contrasted each ability group between the two different language and instructional settings. That is, observations in the Spanish-language classrooms provided us with information on the nature of reading instruction and on the children's reading abilities in their first language. A contrast of these findings with reading lessons in the English-language classrooms permitted us to address issues of assessment and placement when the

teacher is an English-monolingual speaker (the most common instructional situation these types of children encounter in schools). This contrastive analysis enabled us to clarify the nature of the relationship between the teaching-learning process in Spanish and the teaching-learning process in English. It was this understanding, as we shall show, which helped us engineer new teaching/learning situations in the second study.

The Spanish language classroom

In this section we will describe the organization of reading lessons in the Spanish language classroom for each of three ability groups and provide examples of the teacher-student interactions that constitute the lessons.

The low group. The major emphasis of the lessons in this group was directed at teaching decoding skills. Although the children were seated together and formed a distinct ability group, the teacher provided instruction on a one-to-one basis. In the example below, the student reads the words aloud and when the teacher notices he is having difficulty, she intervenes by providing single words to help him continue. [3]

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3. The examples provided in this section occurred in Spanish. They are translated here for the reader's convenience.

I. 1. Child (C): How are we going to the beach?
Today we...
2. Teacher (T): We'll...
3. C: We'll go by tra...
4. T: train
5. T: train, said the mother. Lucy and Ringo see...
6. T: seem
7. C: seem happy (singular - "contento") too.
8. T: happy (plural - "contentos")
9. C: happy (plural) too.

In addition to simplifying the child's reading task by sensitively providing correct words when the student hesitates, the teacher also provides auxiliary help. For example, the child in Example I is asked to read while placing a piece of paper to cover those lines he has yet to read. This helps him to focus only on the exact line he is reading. At certain times the teacher took over this function by moving the paper along the lines, thus simplifying the task demands on the student even more.

Instruction at the level of decoding is carried out in many instances without any explicit assurance that the children understand <u>what</u> is being read. The teacher checks on comprehension by constructing educational sequences designed to familiarize the children with the process of examining the content of the story. (Answering comprehension questions becomes a primary activity in the more advanced groups.) In the following example, the teacher questions the student after he has read a story about a family trip to the beach.

II. 1. Teacher (T): Ok, tell me what was the story "To Swim" about?
2. Child (C): That they are going to swim... I mean in the morning they are going to go swim.
3. T: mm--uh. And does it seem by seeing this (pointing to the picture) that they are enjoying themselves? Or not?
4. C: Yes
5. T: How do you know that they are having a good time? What do you see that shows they are having a good time?
6. C: The sand and the ocean.
7. T: Yes, because it says that the sand and ocean are pretty; but in the faces here (points to picture), how are they?
8. C: They are happy.
9. T: The faces are happy. True? They are not sad.

The child has no problem with the initial question (lines 1-2). The next question (line 3) is whether the children in the story are enjoying the beach activities. Note that the teacher points to the illustration when she asks the student to confirm whether or not the children are enjoying themselves. The student answers affirmatively (line 4). Then the teacher asks the student to show <u>how</u> he reached his conclusion that the children are enjoying themselves and urges him to examine the illustration in order to provide an answer (line 5). When the student answers inappropriately (line 6), the teacher directs him by pointing to the exact part of the illustration from where he can extract the answer and asks him a question directly related to the illustration (line 7).

It is important that the teacher works with these children on comprehension exercises, even though they experience decoding difficulties. It clarifies from the beginning that comprehension is the goal of reading. This type of question-answer exchange is also typical of lessons at more advanced

stages. However, the form of the exchange between the teacher and low group child is different from advanced classes since the teacher often ends up supplying answers. Here we have an example of behavior in a zone of proximal development (sometimes called scaffolding, Wood, Bruner & Ross, 1976). The teacher will ask a question at some level of difficulty and, finding that the group or certain children in the group can't interact appropriately at that level, will fill in "parts of the task" until the group's instructional level is met (See also Cole, Dore, Hall & Dowley, 1978; Dowley, 1979). Teachers fill in (provide assistance) in many ways, some of which can be said to focus on the content of the lesson, some of which we are tempted to speak of as "social." In Example II, the teacher even points out to the student the exact part of the illustration as an aid in responding to the comprehension question.

The middle group. In contrast to the low group, the middle group lessons in Spanish primarily involve teacher guidance in promoting reading comprehension, supplemented by instruction concerning how to answer fully and effectively. In the following example, the teacher has asked each child to read a question to the child next to him using the questions in the book as a script. The response has to be correct in both content and form (in this case, a complete sentence).

III. 1. Teacher: I want you to ask Marcos this question.
2. J: Do you put a letter in the mailbox?
3. M: Yes, I put a letter in the mailbox?
4. T: Very good. You ask question 2.
5. J: Do you place a letter in an envelope?
6. A: Yes, I place a letter in an envelope?
7. T: Very good. Okay, number 3.
8. A: Do you have to give stamps to the mailman?
9. J: No, you do not have to give stamps to the mailman.

10. T: Or, I don't give stamps to the mailman. Number 4.
11. M: Does the mailman write the letters?
12. A: No.
13. T: In a complete sentence.
14. A: No, the mailman does not write the letters.
15. T: Very good. Number 6.

This activity provides the students with early and very explicit practice in basic question-answer exchanges (often to known-answer questions) so common in formal lessons.

In this example, the children assume a more complex role in the interaction than the lesson format of the low group requires. They assume (via the use of a script) both the role of questioner and respondent. In comparison with the lower group lessons we studied, the teacher's role changes in three respects. The emphasis on word or sentence level comprehension is different. She does not have to perform the task at this level herself. She uses the reading materials, rather than oral discourse resources, to mediate her interactions with the children. In Example III, the teacher not only has the children use the questions in the book to ask their questions, but also to structure the form of their responses. In other examples, also from the middle group, the teacher is observed asking the questions, but the children are asked to answer <u>without</u> looking at their notebooks or at the text book--without material help. Their answers are given in "complete sentence" form (consistent with the model she has created) and faithfully reflect the content of the story. The added ingredient of providing question-answer formats from memory is not trouble free; If trouble occurs, the teacher may provide both the question and the answer for the student, duplicating the function of analogous behaviors with the lower reading group when lesser demands were in

force.

The high group. The high group lessons in Spanish reveal yet more complex kinds of skill emphasis. The most obvious change is that the children are required to write book reports. But there are also qualitative changes in the way the teacher interacts with the students as a part of reading itself. For activity sequences that are similar for all groups, such as question-answer sequences regarding text, the questions are more spontaneous and informal for the high group. The questions are less text-bound; they do not come straight from the book. Rather, the teacher pursues questions that arise from the exchanges with the students and the topics developed in these exchanges. Furthermore, the emphasis is now on the communication of generalizations drawn from the reading and the requests for complete sentence answers are less. In Example IV, the teacher starts a combined evaluation/instruction activity after the group reads a poem about a cobbler.

IV. 1. T: Sandra, what is this poem about?
2. C: About a cobbler.
3. T: What is he doing?
4. C: Using his hammer.
5. T: Right. /Tipi tapa/, who is making that sound?
6. C: The hammer.
7. T: The hammer, right. Does the poem say that he is a good cobbler or a bad cobbler?
8. GR: (Group) (mixed responses)
9. T: Yes or no?
10. GR: He's a good cobbler.
11. T: He is? How do you know?
12. GR: (Several students respond together)
13. T: Where does the poem say that he is a good cobbler?
14. GR: (Several students respond together)
15. T: Sandra, read the part that tells us.
16. C: (Reads) "Ay tus suelas, zapa-zapa-zapatero remendón,
(Oh, your soles, cob-cob-cobbler mender),
Ay tus suelas, tipi-tape, duran menos que el carton!
17. C: "Duran menos que el carton." (They [soles] last less then the cardboard.)
18. T: How long should the soles last?

19. C: A little less time than the nails.
(The teacher laughs at his response and then the lesson continues.)

The poem itself makes no direct reference to whether the cobbler is a good or bad shoe maker. This conclusion must be inferred from the information given in the poem. The teacher invites this generalization in line 7. There are some differences of opinion among the group as to whether the cobbler is competent or not (lines 8, 10, 12). The teacher selects a student who has answered that the cobbler is not too good, to specify which lines of the poem she used to reach her conclusion (line 15). The girl does (line 16), and the group confirms her opinion (line 17). The instructor then requests more information (line 18), a child quotes the exact part of the line (line 19) that tells the reader that the shoes do not last long. In this example the teacher is less constraining in the way she guides the children's actions, controlling alternatives by her choice of questions and the way she directs the children to find the relevant part of the text.

In another example, students must construct questions as well as answers.

V. 1. M: (to Julio) What do they do with the hogan when a person dies?
2. J: When a person dies in the hogan, they burn the hogan.

In this case, students construct both questions and answers from text independent of either teacher directions or the use of material aids. Note that the student uses the complete sentence form to respond. This is the same form that the teacher requires so frequently from the lower groups and occasionally with the high group. Here we see an example of internalized teaching/learning: students use the communication framework previously

provided by the teacher as a means of organizing their own activity.

Book reports are the most advanced reading related activity found in this third grade classroom. The high group students have to select a book of interest to them, and virtually without teacher help, read it, analyze the content and write a report. Through the process of writing reports the children practice reading and at the same time display their mastery of all the skills we observed in the three lesson environments. This activity culminates in the children's carrying out independently the reading behaviors with new materials and creating a new product (i.e., the book report) in the process (cf., Wertsch, in press).

Summary. We have briefly sketched out the nature of the three reading environments found in the Spanish classroom. We have shown that these environments are organized for providing time on learning tasks that familiarize the children with different aspects of the subject of reading. Here, the teacher mediates between the curriculum (materials and goals) and the children. We have provided examples of how the teacher regulates the level of difficulty of the lessons by modifying, changing and adjusting task demands on the basis of the behavior of the children in the different groups. This regulation of difficulty is usually accomplished by changing the communicative requirements of the lessons. These adjustments are clearly influenced by the students' characteristics, in particular the children's ability to communicate in the form the teacher considers appropriate and relevant to the given lesson context. Through this process of socially mediated regulation, the participants create different contexts for communication within each lesson. Our analysis shows that these contexts for communication contain the principal

mechanism by which the teacher tries to impart the content of the lesson to the students.

If we analyze these lesson environments, not in isolation, but in relation to each other a part of a general classroom "system," it reveals that these environments are not only organized and individualized for each ability level; but are also functionally interrelated. There is a progression of key activities that defines these ability groups and the role of the teacher in this classroom changes in systematic ways as she interacts with the different groups to create their characteristic lessons. In the low ability group the emphasis is on phonics and the teacher actively directs and, in fact, does much of the task for the students. In the middle group the emphasis is on text-specific comprehension and we see a subtle distancing as she deals with children who have more experience with the problem and thus take over more of the task themselves; in the high group the emphasis is on generalization and at times the children apply all of the skills found in the other contexts virtually independent of teacher help and direction. The specific reading behaviors the children practice and learn become increasingly complex. Through modifications in the teacher's role, adult mediation and regulation are diminished as we move from the lower to the higher ability groups. These differences in lessons across ability groups reflect the teacher's implicit "theory" of reading and reading acquisition (Harste & Burke, 1977).

The English language classroom

Once the analysis on the Spanish reading lessons was completed, the same procedures were applied to the examination of the English reading lessons for the same children. Here the situation for teacher and students changes dramatically. The children speak enough English to qualify for the program; the teacher is experienced, but does not speak Spanish.

As in the Spanish classroom, the internal organization of reading groups in English also differed. There was a good correspondence between the membership of the high group in the two classrooms; the target children in the Spanish high group were also in the English high group. However, some of the children in the Spanish middle group were assigned to the lower English group, primarily as the basis of oral language difficulties in English.

The most striking difference between classrooms to the casual observer was the much lower level of reading that went on in English language lessons. The overriding orientation of these lessons was one the process of decoding, pronunciation and other forms related to the sounds of the second language, regardless of ability group.

We will limit our discussion here to the nature of instruction of the high ability group in the English-language classroom because the contrast is so marked, and because it is sufficient to motivate the interventions in Study II. The high group provide the most striking example of how differences in lesson organization can determine what students learn as part of a bilingual curriculum. But, as it will become clear, it is not the language of instruction that is in itself responsible for this critical difference. It is the

kind of zone of proximal development created within each language setting that is crucial.

As the descriptions of Spanish reading activities made clear, the children in the high group can read with comprehension. In common sense terms, they know how to read. By contrast, the English lessons are primarily organized to provide time on decoding and oral language practice, such as word construction and the identification of sounds. Consider the following examples taken from lessons with children in the high group; keep in mind that these are the same children that form the high group in Spanish. We pick up the lesson as the children are taking turns reading aloud sections of a story.

VI. 1. S: "Jill...Jill likes to hide. She likes play...tricks when they...when..."
2. T: Well!
3. S: "Well, then, said Henry. Where can she be hiding?"
4. T: Monica?
5. S: "Let me think, said Rose. Then she saw a...
6. T: She...
7. S: She saw...
8. T: Sheees...
9. Other: said
10. S: She said, I know! I know! ... Rose ran. Henry ran after he. Rose ran... right to the big tree in Jill's backyard. She looked up. Henry looked up. There was Jill. She was sitting way...way up in the tree; and laugh...laughing.
11. T: Laughing, yes

[Another student continues reading aloud.]

This activity, where the students read aloud and the teacher intercedes to correct and assist with individual words, takes up most of the lesson. The students also get to practice word sounds:

VII. 1. T: All right, lets put your books down. All right, I'm gonna read you some words... I want you to tell me the beginning sound and then we'll do some, you do the end sound. "Glad" (looks at Monica)
2. S: "guh"
3. T: "Eat" (looks at Sandra) "Eat"
4. S: "eee"
5. T: Okay, eee. "Fun" (looks at Julio)
6. S: "eff"

From time to time the lessons contain reading activities designed to assess comprehension. In the next characteristic example, the teacher evaluates whether the children have understood passages he is reading to them. Note the sentence-by-sentence inquiry procedure and the brief answer format.

VIII. 1. T: "Sue played on the playground after lunch." Where did she play?
2. S: (The students bid to answer.)
3. T: Julio.
4. S: Playground.
5. T: All right, on the playground. Who was it? Who was doing this?
6. S: Sue.
7. T: All right. When was it? When was it? Eduardo.
8. S: After lunch.
9. T: All right, after lunch. "Joan had dinner at night at her own house." When did she have dinner?
10. S: At night.
(Lesson continues)

It is clear from a contrast of the lessons in the Spanish and the English language classrooms that when the children shift from one language setting to another they do not encounter similar environments. In the English classroom, no complex inferences are required; the lessons merely require that students repeat fragments of recently viewed text. Book reports are not even considered. In short, we do not find the types of functional communication

activities related to reading that occur in the Spanish setting for this group.

Sources of difficulty and change

The analysis of the Spanish lessons shows that most of the children, especially the high group children, have developed sophisticated reading skills in Spanish [Examples IV and V]. The high group children also display adequate decoding skills in English [Example VI]. In this limited sense, at the very least, they demonstrate that they know how to read. But if the children are relatively fluent in oral English (as they are) and possess good decoding skills (as they do), how are we to understand the difference in the level of performance across classrooms? If the high group children can already read for comprehension in Spanish, why are the English lessons organized to place so much importance on phonics or accurate pronunciation? We believe that two sources of communicative confusion produce this kind of situation: 1) in the English setting pronunciation problems and decoding problems are being mistaken for each other and 2) the oral demands of reading and the limitations on the teacher's ability to understand Spanish make it difficult for the teacher to assess comprehension.

Teachers often assume that decoding expertise should precede comprehension (Goodman, Goodman & Flores, 1979) and that correct pronunciation is the most obvious index of decoding. Consequently, the teacher, who does not understand Spanish, organizes lessons to provide the children with the necessary practice to develop fluent oral reading skills. To make an accurate differentiation between a child's inability to decode and inaccurate pronunciation of English words, it seems that the teacher would need to assess reading

comprehension. But as our analysis indicates, activities permitting a display of reading comprehension rarely occur in the English reading lessons, which effectively eliminates this line of assessment.

We should emphasize that this analysis is in no way an indictment of the teacher. It points instead to restricted communicative resources as the cause of the restricted teaching and learning situation. To obtain further information about the interactional sources of this mismatch between language settings we viewed the videotapes with the teachers. Because of institutional constraints on the teachers' schedules, they had never before observed their students perform in each other's classrooms. When the Spanish teacher first saw the children participating in English she exclaimed: "Those can't be my kids. Why are they doing such a low level work? They are much smarter than that." What she indicates, of course, is that the children's behaviors in the English lessons do not represent their reading skills as manifested in her (Spanish) classroom. In our terms, the orientation of the zone of proximal development in English is below the children's reading ability level as displayed in Spanish.

Initially the English speaking teacher was unable to comment on or benefit from viewing the children in the Spanish setting. As soon as the these lessons were translated, however, he made several suggestions about how his own lessons could be modified to complement what was going on in the other classroom. These teacher responses encouraged us to believe that if we could somehow rearrange and augment the pedagogical and communicative resources of teachers and students a more effective bilingual zone of proximal reading development could be constructed. How this was done is described in the next

section.

Study II: Experimentation

Study II was conducted in two previously unobserved fourth grade classrooms with new teachers, as a check on the generality of our original observations and a context within which to test our ideas about bilingual communicative resources and reading. Before intervening in the reading lessons, we first had to ascertain whether we could replicate our findings about dissimilarities in the focus of instruction across language settings.

Our initial observations confirmed the existence of the same "instructional gap" in the new classrooms. Children with excellent Spanish reading skills were placed in English reading groups that required comparatively low levels of performance. This is not to say that these classrooms were identical to the ones we had previously studied. There were differences. For example, reading instruction in the first set of classrooms was organized around ability groupings in both Spanish and English. In the present classrooms, Spanish-language instruction was much more individualized; each child had a "contract" with the teacher specifying the reading goals. Small group lessons in which children were grouped by levels of performance were treated as supplementary to this individualized instruction. When these latter groupings occurred, they resembled the more traditional ability groups discussed earlier. In the English-language classroom, however, reading lessons were organized entirely by ability groups. Again, the children were grouped for reading primarily in terms of their English language competence.

These patterns of instruction, despite differences in within-classroom organization, produced the major phenomena needed for this study--a discrepancy in the level and organization of instruction across languages. As in Study I, reading lessons in English were implemented independent of information of how well the children read in Spanish.

Design of the intervention

With the basic conditions in place, we developed a series of lesson interventions designed to alter the existing teaching-learning contexts. We decided to focus our attention on the students that made up the "low" reading group in English because they presented such a useful variety of Spanish reading skills (see Table 1). This group consists of three Spanish-dominant girls whom we shall call Sylvia, Carla and Delfina. Briefly, Sylvia belongs to the most advanced Spanish reading group, Delfina to the middle level and Carla the lower level. Although, these same three students are receiving the same instruction in English reading, the skills that they bring to the English lessons are very different.

Table 1: Reading Placements Across Classrooms

	English	Spanish
Sylvia	Low	High
Delfina	Low	Mid
Carla	Low	Low

This information about their reading performance in Spanish is very important for understanding what is happening during their English instruction as well as for guiding interventions to improve their performance. The sections that follow describe in detail our lesson manipulations--and, in so doing, trace the development of our interventions.

The first intervention: Assessment through instruction

Our initial intervention consisted of two parts. First, we asked the English-language teacher (an English monolingual female) to teach a regular (first grade level) lesson to the three children in the low group. The transcripts presented below will illustrate the types of difficulties the teacher and children have as they construct the English reading lesson. We take the performance in this setting as an index of the bottom of their zone of proximal development; the place to move away from. At the end of this lesson, one of the researchers replaced the teacher and asked the children comprehension questions in Spanish about what they had just read in English. We wanted to know if the children could understand more about what they were reading than they could display in the English lessons as conducted by the monolingual teacher.

Part 1: Regular instruction in English. The lesson began with a brief pre-reading discussion about field trips (the topic of the story), as the teacher sought to set the context for comprehension. Then the children began to read aloud. Transcripts from this lesson illustrate several difficulties: the children were unfamiliar with some of the English words they encountered in the story, such as the contraction "can't" (lines 8-15) and the word "surprise" (lines 19-22). Some words are mispronounced; "said" is

mispronounced three times as "sayed" ([seyd], lines 17, 22).

IX. 1. Teacher: Let's start reading the first page. We are going to meet a lot of new people in this book. (Carla and Sylvia have their hands up)
2. Delfina: Can I read first?
3. T: (To Delfina only) I'm going to let Sylvia read first, she has her hand up. (Delfina immediately puts her hand up - more like a joke; Sylvia starts reading)
4. Sylvia: "You can't guess where we are going, said David."
5. T: Ok, just a minute, please, Carla, we need you to follow with us. (Carla was not glancing at the book).
6. Carla: Ok.
7. T: Delfina, we need you to follow right along. (To Sylvia) Would you start all over again?
8. S: Ok, I'll start over again. "You can't guess."
9. T: Ok, what is this? (Points to word)
10. S: Can't?
11. T: Can't. What does that mean? (Pause)
12. D: Um...
13. T: Ok, Carla, if I say you can guess or you can't guess.
14. D: (With hand raised) Oh! Can't is like no...
15. C: Don't do that.
16. T: Uh, yeah, uh huh. Read the sentence, the whole sentence again and let's see if it says...
17. S: "You can't guess where we are going, sayed David Lee."
18. T: Good.
19. S: "It's going to be a..." (Looks at teacher)
20. C: Surprise.
21. T: Surprise.
22. S: Surprise. "I like surprises, sayed Isabel. You bet, I'll bet you guess where we are all going, sayed David." (Carla and Delfina raise their hands to read next; Teacher selects Delfina.)

This brief excerpt is characteristic of the way most of this lesson progresses and is characteristic also of other lessons we observed prior to videotaping. There were frequent interruptions as the teacher helped the children to pronounce accurately and define unfamiliar English words.

In the following transcript difficulties in verbal expression are evident. The transcript illustrates the difficulty the children have when they must participate actively to display reading comprehension. This difficulty,

in turn, causes a (reciprocal) problem for the teacher in interpreting how much the children know. Note, however, that even in the context of this low group lesson, there were displays of reading behaviors indicating that the children may be better readers than this level of instruction elicits. For example, in answering the teacher's questions about the identity of Isabel (line 11), Sylvia immediately goes to the text and quotes the passage (line 12) that contains the response to the teacher's question, thus revealing skills in text analysis that seem to be beyond the level one would expect for a child assigned to a low level reading group.

X.
1. D: "Are we going to the zoo? asked Pet, Petty?"
2. T: Pete.
3. D: Pete. "We went to the zoo, said Penny." "That is not where we are going, said David. Are we going to the art..."
4. T: Airport.
5. D: "Airport, said Ken."
6. S: Asked
7. D: "Asked Ken. We can went, no went to the airport, said David. I want to go up in the building, sayd Isabel. That is not where we are going, sayd David."
8. T: Any idea where they're going?
9. D: I know where.
10. C: To the park.
11. T: Which one is Isabel? Which one do you think? (Delfina and Sylvia point to something in their book.) The girl? How could you tell that?
12. S: Because she said, "I want to go up in the building, said Isabel."
13. D: -----go up in the building-----
14. T: And in the picture, what's she doing?
15. S: She raises her hand----- (points up as if at a building.)
16. T: She's pointing up, isn't she, that's called pointing. Ok, let's go and read the next one. Carla, would you read this one for us?

Although hindsight suggests that the teacher is overlooking children's strengths, she cannot be faulted for her oversight. Even if she wanted to capitalize on the students' reading skills, communicative pressures would push the lesson towards the individual word level. The students' answers were fragmentary, giving the teacher very little to work with. There was no obvious evidence, in the interaction, of the children's ability to comprehend what they were reading. The teacher is quite reasonable in sustaining her strategy of promoting decoding and oral language skills given the overall evidence she had. Recall that the teacher is monolingual and although the students' level of English proficiency were assessed as sufficient to profit from instruction, this selection criterion is very problematically related to their ability to formulate responses in English in a question-answer format where grammatical form, phonic accuracy as well as comprehension are being assessed.

Part 2: Expanding the communicative resources. Upon completion of this lesson Stephen Diaz conducted a session with the children in Spanish to check their comprehension of the story they had just read in English. In this session the children clearly demonstrated that they understood far more than they were able to express in English. Three brief examples with Sylvia, contrasting her displays in English and Spanish, illustrate this point. First, during the English lesson; note the hesitancy in response and the fragmentary answers (lines 8-14).

XI. 1. T: ...Why don't we just close our book now for a second? (To Delfina) Yeah, leave your bookmark in. (To everyone) Was Isabel lost?
2. All: Yes. No.
3. T: Was she really lost?
4. S: She was in the, uh...
5. D: Fire truck.

6. S: Uh huh, fire truck, and
7. T: Why did they think she was lost?
8. D: Because, the boys and girls, um, looked, (Sylvia raises her hand)
9. T: Sylvia.
10. S: Uh, because the boys and girls, uh (pause, laughs) the...um,
11. D: Had to go home.
12. S: Because the boys and girls go-----
13. T: Mhm
14. S: -----out in the first place... (Delfina has her hand raised) and the girls not say "I am here."

Compare these answers to her responses to virtually the same probe in Spanish [translated for readers' convenience]:

XII.

1. SD:	?Cómo sabían los muchachos, que se había perdido la muchacha. ?Cómo se llama?	How did the boys know, that the girl had gotten lost. What is her name?
2. C:	Isabel.	Isabel.
3. S:	um, um, David, y	Um, um, David, and
4. SD:	Pero. ?cómo sabía? (Delfina raises her hand)	But, how did he know?
5. S:	Um, porque, (gestures to Delfina that she can answer).	Um, because,
6. SD:	Que me diga Sylvia, porque no la oí.	Let Sylvia tell me, because I didn't hear her.
7. S:	Porque el, ella, ellos le, le gritaban y, y, la buscaban, por donde todo el edificio donde viven los bomberos y ella no les contestaba (is nervously shaking around paper).	Because he, her, they would, would yell for her, and, and, look for her, throughout the entire building where the firemen live and she wouldn't answer them.

She later elaborates.

XIII.

1. SD:	Digo, ?cómo supieron que estaba, que se había perdido Isabel?	I mean, how did they know that she was, that Isabel had gotten lost?
2. S:	Porque David dijo que ya se tenían que ir. Entonces dijeron "?quien falta?" No falta nadie, entonces dijeron, "Isabel." Entonces empezaron a buscar, y	Because David said that they had to leave. Then they said, who's missing? No one's missing, then they said, "Isabel." They started to search, and

no la encontraban y decían, "está perdida ella, señor." El bombero dijo, no, no, no puede estar perdida. Pues andaban buscandola, y llegaron al troque y el señor dijo que allí estaba Isabel.	couldn't find her and they would say she's lost, sir. The fireman said, no, no, she can't be lost. So they were looking for her, and they got to the truck and the man said that there was Isabel.

In examples XII and XIII, Sylvia answered in Spanish basically the same question posed initially in English. Although it is obvious that her Spanish fluency facilitated the more elaborate answer, our point goes beyond that observation. The details provided in her answer reveal that she understood the story rather easily; her oral language limitations in English appear to be masking her comprehension abilities.

A final excerpt may be even more revealing. During the Spanish session, Stephen Diaz asked Sylvia to read in English but to explain the passage in Spanish. Here is what happened.

XIV.

1. SD:	Ok. Quiero que me leas tú (to Sylvia) y también que me digas, esto (points to two pages).	Ok. I want you to read (to Sylvia) and also tell me, these (points to two pages).
2. S:	?Todo?	?Everything?
3. SD:	Mhm.	
4. S:	(Reading in English) "There she is, the fire fighter said, and here's my hat." "Came, come down now Isabel, said David. It's time to go."	
5. SD:	?Qué pasó?	What happened?
6. S:	El señor, um el fireman, dijo "aquí está, aquí está ella," ?verdad? "esta ella, dijo el señor, entonces, y, "aquí, tambien está mi gorro," y luego, y, David," dijo, "ven para abajo ahorita, Isabel, que ya nos tenemos que ir."	The man, um the fireman, said "here she is, here she is," right? "She is, the man said," and, "here also is my hat," and then, and, David said, "come down now, Isabel, we have to go."

Sylvia gave a sophisticated and accurate translation of the passage. Note also that she made syntactic adjustments in Spanish to accurately translate the English sense across languages.

The analysis of the English reading lesson and the brief bilingual intervention that followed provided the following information: 1) the most obvious deficiencies displayed by the students in the lesson concern oral expression, and 2) the children could understand more about the story than they displayed in the context of the English reading lesson.

The second intervention: Creating the Zone from bottom to top

The difficulties that the girls display in decoding and discussing the text during the English-language lesson seem to confirm the appropriateness of the placement. The teacher, who is not bilingual, makes decisions about the organization and focus of instruction primarily on the children's English oral competence. We also have evidence, however, that oral language difficulties notwithstanding, the students are adept at reading comprehension. The instructional interactions are clearly sub-optimal, but what can be done about them?

Finding the top of the Zone. The zone of proximal development approach reminds us that in this bilingual situation the students have at least two potential entry levels for reading; one in English, plagued by difficulties in verbal expressions, vocabulary and so on, and the more advanced level as manifested in their Spanish reading lessons. We hypothesized that the children's Spanish reading level would be a useful indicator of the top of their zone of proximal development for reading. This implies that English reading should be

taught in the context of what the children can do in Spanish. This recommendation reverses the course of the children's instruction. In the standard instruction we described, failure to display comprehension skills in English leads to lessons that simplify the level of reading to match the children's oral expository language skills, and provide plenty of practice in those skill areas in which the children are weakest, usually at the expense of comprehension, the students' reading strength. The comprehension activities that do occur are constrained by the children's inability to produce extended discourse that would facilitate text discussion. However, aiming instruction at a reasonable proximal level is only the beginnings of a solution to the problems we have identified; the lesson's content and interactions also have to be manipulated.

Arranging the conditions for the Zone. We wanted to use only the existing classroom resource in reorganizing the conduct of lessons in order to increase the general utility of the changes. We started by adjusting the level of grade difficulty of the reading materials. Taking the students' level of Spanish reading as the top of the zone, we asked the English teacher to provide us with the fourth grade readers she used in her class. Not surprisingly, the teacher expressed her misgiving about "jumping" the students three reading levels. After all, they were struggling with a first grade reader in her lessons. We were confident, however, that if the students could use their Spanish reading skills and Spanish oral skills as support, they could hold their own in English comprehension.

Now we faced the problem of providing the theoretically necessary support. We also wanted to gain a better understanding of the interactional constraints the teacher faced in teaching reading to limited English speakers. To gain this insight, we assumed the teaching role. We were particularly interested in determining how often and at what junctions we would need to resort to Spanish to facilitate comprehension in English. We knew that the students understood more about what they read than they could express in English, but we wanted to push the limits; therefore, we established "reading for meaning" as the (higher order) goal of the lesson from the beginning. So we tried to support the higher order goal of comprehension, while helping the students with the "lower" oral practice level of reading. What follows is a description of how we actually implemented these procedures.

Working within the Zone. As the intervention began, both of us researchers took on the teaching role,[4] and assumed initial responsibility for decoding. We read the story (Sr. Coyote and Sr. Fox) to the students and asked them to concentrate on listening and understanding what is was about. We read deliberately and clearly, and finished the story in approximately eight minutes. We then reviewed and recreated the plot to clarify the meaning of the story. Both the reading and the review were done in English only. We knew that we would also have to assume most of the initial responsibility for text discussion, given the children's limited English proficiency. However, it was essential for the students to participate in the discussion at some level, even if only to respond minimally to our questions. We used a

4. We recognize that our amateur teacher status is problematic for general application by classroom teachers. However, subsequent to this we had a regular bilingual classroom teacher try our procedures with the same group of students and with similar results.

question-answer sequence, adjusting the level of difficulty of the questions to give the minimum support necessary to elicit a response from the students. As the students became more able to answer difficult and abstract questions, the adult help was removed (Vygotsky, 1978; Wood, Bruner & Ross, 1976).

Step 1: Facilitating entry. We present an example below of how we facilitated the children's participation in the lesson. At this point in the transcript we (the researchers) have already read and reviewed the story and are now trying to engage the girls in the discussion. We had already established that the Coyote wanted to eat the Fox, something that is described in the opening lines of the story. We have quoted from the transcript at length to show how we dealt with the students' hesitancy to participate (lines 1-11) by facilitating and building on the students' responses (lines 13-23). This "control" of the interaction by the adults, and the skewed division of labor it represents, characterizes the initial stages of a zone of proximal development.

XV. 1. SD (Stephen): What was Sr. Coyote going to do to Sr. Fox?
2. L (Luis): Mhm
3. SD: What?
4. L: Mhm
5. S: (inaudible)
6. SD: (To Sylvia) Speak up.
7. L: Yeah, that's right.
8. SD: What did she say? I didn't hear her.
9. L: I think she said he was going to eat him.
10. S: Mhm
11. SD: Oh, OK.
12. L: She was going to eat, he was going to eat Sr. Fox when he saw him. At first...
13. SD: And then what did Sr. Fox do?
14. C: Oh. (Pause)
15. S: He said that (pause) Sr. Fox say to, um, Sr., ah, Coyote that he'll help to -----
16. L: To help him do what? Hm? Here's the picture.
17. SD: To help him do what? Where is it? OK.

18. S: To hold
19. L: Right. To hold up
20. SD: Hold up
21. S: The rock
22. SD: Right
23. L: Right. He said, he said, look, this big cliff, this big mountain, it's falling down. I'm holding it up. See? Why don't you help me hold it up? The fox told Sr. Coyote. Did Sr. Coyote?
24. SD: I need a book here.
25. L: You need a book ----- Sr. Coyote looked up at the mountain and he saw this big mountain. And he said, maybe the mountain is falling down. (Luis gives book to Stephen) But did he, did Sr. Coyote believe him right away?
26. S: Uh uh
27. L: That the mountain is falling down? Hm? You say no, Sylvia. What do you think, Carla?
28. SD: When, when, when Sr. Fox pushed against the cliff, what did Sr. Coyote do? Do you remember? Did he just stay there? And just stand there?
29. C: No
30. SD: What did he do?
31. S: Um (pause)
32. SD: Why did he, why did Sr. Coyote decide to help him? (pause)
33. C: Um, because then the
34. SD: Take your time.
35. L: Mhm?
36. C: The, the rock, um, gonna fell in him. The coyote.
37. L: OK

This transcript illustrates how we attempted to facilitate student entry into the discussion. Although we controlled most of the talking, the students "entered" the discussion with their abbreviated comments (e.g., lines 5, 10, 14, 18) and we immediately built on the students' responses (lines 17-20, 22-37) and filled in missing elements to present the "whole picture" (lines 23-27).

Soon thereafter, we found an appropriate level of difficulty to elicit more student participation. We pick up the transcript after it is known that the Fox gets the Coyote to help him hold up the cliff.

XVI. 1. L: So what did the fox do? At that point. Sylvia.
2. S: He said that he would bring food, food.
3. SD: Mhm?
4. L: Right, that he was going to go, he says wait a minute, I'm going, I'm going to go.
5. SD: All right. Wait a minute. He said he was going to do what? I'm in the wrong spot.
6. L: Mhm. Where are you reading that, Sylvia?
7. SD: Oh, OK.
8. S: Chicken and tortillas
9. L: Mhm
10. SD: And bring help
11. S: Mhm
12. L: He says you, right, you're right. You see, Carla, the, the fo, the, the, the co, the fox said to the coyote, "You stay here and you hold up this wall, and I'll be right back. I'm going to go get some help." Right?
13. C: Mhm
14. L: He's explaining, "I'm going to go", and also, I'm going to bring you some chicken and I'm going to bring you some tortillas. So don't move. Stay right there holding up this big wall. I'm going to go get all those things and I'll be right back", he says. "Don't worry, I'll be right back, ah, I'm just going to be gone half an hour". Right? Do you think the fox was serious about returning?
15. C: No
16. S: No
17. D: He was lying.
18. L: He was lying, right.
19. SD: How long did Sr. Coyote stay there?
20. D: Half an hour
21. S: Two hours
22. SD: How long? Do you remember how long he stayed there, Carla?
23. C: No, like
24. SD: (To Delfina) How long do you think he stayed there?
25. D: Um, all the night.
26. L: Right
27. SD: That's right.
28. L: He stayed all night long.

Once again, we stepped in, elaborated the children's answers and "situated" them in the context of the story (lines 1-14). We also tried to elicit responses from all three students (lines 15-28) to keep them "in" the

interaction. As such, the discussion of the story becomes mutually accomplished in the interaction between adult and student.

Step 2: Vocabulary help through comprehension. After we ascertained that the students had a cursory understanding of the story, we reviewed unfamiliar, difficult or unknown vocabulary items. Again, the ideas was to define the words to facilitate a better understanding of the story. A brief example should suffice; Carla is reading from the text.

XVII.
1. C: "If he, if I held it up for I will by myself."
2. L: Si
3. C: "Then surely you with your great s..."
4. L: Strength
5. C: "strength can hold it up for the short time it will take me to, to return and, and bring help and chicken and tortillas. I will bring other with me and they will carry..."
6. L: Poles
7. C: "poles to..."
8. S: Brace
9. C: "brace this thing..."
10. S: "up with
11. L: OK
12. SD: It's a long, and what is that, what, what is that, what is he saying there? Can somebody tell me? (Pause) OK. I will, I will, I, "if I held it up for a while by myself then surely you, with your great strength can hold it up." What is it, what is he saying there? If I held it up for a while by myself, then surely you, with your great strength can hold it up for the short time it will take...
13. S: Fuerza Strength
14. D: Oh!
15. L: All right!

16.	SD:	Aha. Very good.	
		Strength quiere decir	Strength means
17.	C:	Fuerza. Si yo le aguanté por un rato, ah, dijo Señor Fox, entonces, entonces usted, Señor Coyote con su gran fuerza puede aguantar, aguantarlo un rato. Todavía más tiempo.	Strength. If I held it up for a while, said Mr. Fox, Then, then you, Mr. Coyote, with your great strenth can hold, it for a while. Even Longer.

We concluded this session by asking the students to reread the story for homework, identify new words to define in class and explained that we would continue to help them discuss the story.

Step 3: Moving forward. As we concluded the first session we had a good sense (before reviewing the tapes) that the students understood the story generally and that this understanding would provide us with the base from which to move them forward. In contrast to the session already described, in this session we allowed a selective use of Spanish in expressing what the story was about. We did this purposely because we did not want their difficulties in oral English to constrain unnecessarily the children's participation and practice in lessons at this level. It worked. Within the first minute of the lesson, Sylvia provided a fair summary of the plot in Spanish. She demonstrated a grasp of the literal meaning of the story she had read in English.

XVIII.

1.	L:	(To Carla) Huh? Should we do it in Spanish first, and then switch to English afterwards?	
2.	C:	Yes. (laughs)	
3.	L:	OK. Bien, este, cuenta un poquito de, de que se trata la historia, "El Sr. Coyote y el Sr. Fox."	OK. All right, then, say a little bit about, what is the story, Sr. Coyote and Sr. Fox about."
4.	C:	Um, es que el Sr. Coyote se quería comer a, al, um, al Sr. Fox, en, de, entonces,	Um, it's that the Sr. Coyote wanted to eat, um, Sr. Fox, and, and then,
5.	L:	Mhm. Ese es el principio. El	Mhm. That is the beginning.

		Sr. Coyote vió al Sr. Fox y da la casualidad que el Sr. Coyote tenía hambre.	Sr. Coyote saw Sr. Fox, and, and it just happened that Sr. Coyote was hungry.
6.	C:	Mhm	
7.	L:	Y dijo "Mmm. Este Sr. Fox, me lo voy a comer." Bien, y entonces, ?qué? Delfina. (Delfina laughs and looks in and looks in book)	And he said, "Mmm. This Sr. Fox, I'm going to eat him." Okay and then, what? Delfina.
8.	L:	Mhm? Ayúdala, Sylvia. Ayúdala, Sylvia.	Mhm? Help her, Sylvia. Help her, Sylvia.
9.	E:	?Qué estaba haciendo el Sr. Coyote? En el principio.	What was Sr. Coyote doing? In the beginning.
10.	S:	?El Sr. Coyote? Estaba caminando.	Sr. Coyote? He was walking.
11.	SD:	Mhm. ?Y luego, que pasó?	Mhm. And then, what happened?
12.	S:	Se encontró al Sr. Fox.	He ran into Sr. Fox.
13.	L:	Mhm	
14.	SD:	OK	
15.	S:	Y el Sr. Fox supo que se lo quería comer.	And Sr. Fox noticed that he wanted to eat him.
16.	L:	Mhm	
17.	S:	Entonces, entonces, este, le, él dijo que, que le ayudara a detener la piedra grande. Que porque si no le ayudaba, la piedra les iba a caer encima de los dos. Entonces el Sr. Coyote dijo que, el pe, él miró para arriba y pensó y dijo que, que le iba a ayudar. Entonces, le ayuda y el ese el, el Sr. Fox dijo, el pensó que, que hay, no es una mentira de que iba a ir a, a pe a pedir ayuda y que le iba a traer comida.	Then, then, eh, he, said that, to help him hold the big rock. That if he didn't help him, the rock would fall on both of them. Then Sr. Coyote said that, he, th, he looked up and thought and said that, that he would help him. Then, he helps him and, and, Sr. Fox said, he thought that, that it's not a lie that he was going to get, to get help and to bring food.

The lesson continued and Delfina summarized haltingly what happened when the Fox left the Coyote "holding up" the hill. We then arrived at the key to the story, the Coyote's realization that he has been fooled by the Fox.

XIX.

1.	SD:	Mhm, OK, y, y mientras, OK, what happened after that, when, when the fox said, "OK." ----- foolish. When the fox said, um, "OK, I'm going to go get some chicken and tortillas." What happened after

2.	D:	He went around, ahy, he was lying, lying, and he was, el Sr. Coyote was holding every time up all the time the, the hill.	
3.	SD:	All right, and what was he thinking?	
4.	D:	That he, he, he, um, the, ...	
5.	L:	Hm? What was el coyote thinking? When he was holding, as, as he was holding up the hill.	
6.	SD:	Mhm	
7.	L:	What do you think?	
8.	SD:	----- en el español o en inglés.	----- in Spanish or in English.
9.	L:	?Sylvia o Carla?	Sylvia or Carla?
10.	C:	Que...	That...
11.	L:	----- Carla	
12.	C:	Que le ha echado mentira.	That he (Sr. Fox) had lied to him.

Note that Carla (line 12), the poorest reader in the group, was able to answer. Sylvia then followed up, without much adult help, with a description of the story's ending.

XX.

1.	S:	Y si luego no le cayó nada en, porque él, el Sr. Fox le había dicho que, que es, que si es y luego si suelta cuando el Sr. Fox se iba, le dijo que no la soltara porque si la soltaba no va a alcanzar a correr y le iba a caer encima.	And if nothing fell on him, because the, the Sr. Fox had told him that, that, it is (going to fall) and if he lets go when Sr. Fox leaves, he told him not to let go, because if he did let go, he wouldn't be able to run away and it would fall on him.
2.	SD:	Mhm	
3.	S:	Y luego, por eso, él, él agarraba y agarraba.	And then, that's why, he, he held on and on.
4.	L:	Exacto ----- exacto.	Right ----- right.
5.	S:	Entonces, él dijo que iba a intentar a ver si no le caía. Cuando él, y, a, el Sr. Coyote cuando el se iba allá. El, um, dijo que iba a ver si no se le caía y ya cuando corrió muy recio y miró que la, la piedra, um, no se le caía, el dijo que le estaba echando mentiras el Sr. Fox y entonces se enojó.	Then, he said that he'd try and make sure it wouldn't fall. When he, and, a, Sr. Coyote, when he was going to go. He, um, said he'd see if it didn't fall on him and when he finally ran real fast, and saw that the, the rock didn't fall, he said that Sr. Fox had lied and then he got angry.
6.	L:	Entonces ----- se dió cuenta,	Then ----- he realized, mhm.

		Mhm. ———	———
7.	S:	Aha, que, que era mentira lo que estaba cayendo la piedra.	Aha, that, that it was a lie that the rock was falling.
8.	L:	Exacto. Exacto. Este, muy Sr. Fox, ?verdad?	Right, right. Ahh, very smart Sr. Fox, right?
9.	S:	Uh huh	
10.	L:	Pensó muy rápido. ?Y si no piensa rapido?	He thought very fast. And if he doesn't think fast?
11.	S:	Se lo come el coyote.	The coyote eats him.

Step 4: Eatablishing comprehension. Finally, we turned to the comprehension questions included in the text. These were the questions that regular English speaking students also hadto answer and, as we learned for the teacher, had difficulty answering. This is a key point. Although the Spanish-dominant students had problems making the jump to fourth grade level reading, their difficulties were similar to those encountered by fourth grade English speaking students when dealing with the more abstract, subtle information these questions elicited. The first question (lines 1, 5, 7) is typical of the type of inference expected of children at this reading level. It asks why the Fox changed the way he addressed the Coyote from "Mr. Coyote" to "Brother Coyote". The answer to this question had to come from the students' understanding of the story. Simple recall would not suffice. Note that Delfina attempted to provide an explanation in English (line 8). Before we could extend what she was saying (lines 9-11), however, she clarified her answer in Spanish (line 12). We then expanded what she said (lines 13-16) and Sylvia then succinctly gave an appropriate answer to the question (line 18).

XXI.

1.	L:	Um, why do you think, what do you guys think that the fox started calling Sr. Coyote "brother coyote"? He says here, "How about it, brother coyote?"	
2.	S:	?En qué página?	On what page?

3.	L:	En la página, en la dos, en la dos noventa y nueve.	On page, in the two, two hundred ninety-nine.
4.	C:	-----	
5.	L:	He says, "'What do you say?' asked Sr. Fox. 'How about it, brother coyote?'"	
6.	D:	Oh!	
7.	L:	"'I won't be gone more than half an hour.'" Why did he start calling him brother coyote?	
8.	D:	Oh, because he, only said to try lying because he wanted to...	
9.	L:	Right	
10.	SD:	Mhm	
11.	L:	You know he, he was	
12.	D:	Ay, para que él crea que nada más que va a venir rapido.	Ay, so he believes what he says.
13.	L:	Claro, cambió de señor a, a, a, a brother coyote para hacerse mas el amigo de la, si como si fuera amigo.	That's right, he switched from señor, to, to, to, to brother coyote to appear to be more friendly of the, as if he were a friend.
14.	S:	Mhm	
15.	D:	Mhm	
16.	SD:	El, hermano.	The brother.
17.	L:	------	
18.	S:	Para que le creyera lo que iba a hacer.	So he (coyote) would believe what he was going to do.
19.	L:	Exacto. Very good. Excellent. That is why. Good point.	Right.

We continued by asking other comprehension questions from the text. The students were able to answer with varying success. In general, they needed considerable help before approximating reasonable answers to the questions. Nevertheless, at the conclusion of the lesson we were confident that the students could perform at the more advanced levels.

As a follow up, the next day we briefly reviewed the children's understanding of the story. Although there was some variation, they understood the story. For example, Carla, the poorest reader, willingly provided reasons why the Fox was able to trick the Coyote. She explained that maybe the Coyote had overestimated his own intelligence and underestimated the intelligence of the

Fox. Further, she was able to give this explanation with minimal help. Shortly afterwards, Carla and Sylvia jointly clarify a point that Delfina had misunderstood. In response to our questions, the group established the cleverness of the Fox in avoiding a physical confrontation he could not win.

Discussion

In describing the development of these interventions we have attempted to clarify the logic of our strategies for reorganizing reading lessons into effective zones of proximal development. We started by describing the focus and structure of lessons for the different ability groups in the Spanish and English-language classrooms. Each showed a "simple to complicated" structure that is normative in U.S. schools. This comparative description, in turn, allowed us to specify how the existing organization of instruction differentially shapes what the students can come to learn about reading. We then contrasted reading activities for the same students in the two instructional settings (English and Spanish), concluding that the children's ability to read and comprehend were being consistently underestimated in the English-language classroom. This underestimation took the form of an "instructional gap": children whose ability to read were quite advanced in the Spanish lessons, were often relegated in English to levels of pre-reading activity. We show that this situation is not solely a result of the children's oral English language skills, since the gap remains even when the students readily understand what they read in English.

Through observations and interviews with the teachers, we identified several factors (beliefs about the proper sequence of instruction, limited oral Spanish skills of the teacher, limited expository oral English skills among the children) that contributed to the formation and maintenance of these discrepant lesson activities. Of particular importance, is that lessons in English were being conducted independent of information about the children's level of reading in Spanish. An important consequence of these arrangements is that without knowledge of the students' actual reading abilities, the English reading curriculum underestimates the student's ability by addressing low level oral language problems at the expense of developing grade-level reading comprehension.

Building on this information, we turned to reorganizing instruction in ways that would create more advanced English reading/learning environments for these students. We started by using the available information about the students' level of reading in Spanish as an estimate of their ability to read and comprehend text: we made the assumption that Spanish reading specified the top of the children's zone of proximal development and set out to see if this level could be achieved in reading English.

We also changed the structure of the reading activity to establish comprehension as the higher order goal of the lesson. The major change in the structure of the interactions that resulted from our interventions was that the lower order elements of the process (decoding individual words, correct pronunciation) were taken for granted and supported by us in an informal manner that continually emphasized our presupposition that the children could process text for comprehension, but that the production of well-formed English

sentences to externalize this understanding was the bottleneck. By adopting a mixed Spanish-English oral interactional medium, we believed that we were freeing up the children's ability to manifest their higher order understandings. Thus, we addressed the students' needs, but as part of a different teaching-learning system. Our help was repackaged and applied in a theoretically different way.

The key idea is to relate previously unconnected lessons into what Luria (1976) calls a "complete functional system." That is, to think of lessons, not as narrow, isolated "zones of proximal development," but as embedded activities organized into a system of concertedly working zones, each of which performs its role in the service of the overall academic goal. In the work described here, we coordinated aspects of reading lessons in Spanish and English to integrate previously separate lessons into related components of a single, unified teaching-learning system. In so doing, we transformed the English reading lesson for both the teacher and students into qualitatively new learning environments—one "focused" on reading comprehension as the lesson's goal, while strategically providing the students with the social and linguistic resources to operate at conceptually higher levels in English.

This procedure clearly contrasts with lessons as they had previously been structured, which were aimed at correcting language-related reading problems and subordinated reading comprehension to oral accuracy. The teacher's own lessons also address comprehension, but at a level that matches the children's lower level of English oral language proficiency and as a hoped for end-result of the lessons. In our scheme, the teachers "hold in" comprehension as the primary or higher order goal from the beginning, at a level comparable to

Spanish reading, while directly addressing language-related difficulties in the service of that goal. We consider it important that by creating these functional learning systems, the children were able to comprehend in English at a level that approximates their reading in Spanish--a three year jump in comprehension.

Along the same lines, we have also tried to use the English reading lessons as a basis for developing the oral skills of the students in that language. We know they can comprehend what they read in English much better than they can express it. We take advantage of this fact by using the reading content in the oral language lessons for the students to practice the types of discourse that help them participate more fully and independently in the reading lessons. The idea is the same as our attempts to connect, yet maintain distinct, reading in both languages; here we relate reading content to English oral language development. Elley (1981) has implemented a similar arrangement in his work in Samoa and reports significant gains in both reading and oral language development. Similarly, but in a monolingual situation, Petrosky (1982) has developed specific ways of integrating reading, writing and literature as part of a mutually complementary curriculum.

Our examination of instruction from this functional learning systems perspective has led us to take a fresh look at common educational policy issues. We address some of these issues below in terms of their role in or contributions to the development of a well-integrated teaching-learning system.

Implications for program development

Our research has highlighted the complexity of the factors governing Spanish-dominant children's ability to read English. In this section we want to address the pedagogical implications of this work.

A major conclusion resulting from our research is the need to emphasize the desirability of planning at least two and perhaps more kinds of teaching situations, depending jointly on two factors: The children's oral skills in English and their reading skills in Spanish. Using these skill areas as the basis of discussion, different configurations of instruction are suggested by our work.

The first situation is for children who read well in Spanish but experience difficulty with oral English proficiency. Here we recommend (1) continued programs of Spanish reading to provide them with as strong a base as possible for developing higher order comprehension skills, (2) complementary English reading lessons keyed to the level of their Spanish reading skills in which correct oral English performance is subordinated to comprehension, (3) English oral language lessons that are integrated with the English reading curriculum, so that the specific and expository skills in English needed to work entirely in that language can be strengthened. Spanish reading preparation has proven to be an excellent vehicle for increasing English reading and lessons ought to be structured to exploit that situation.

The second situation concerning Spanish-monolinguals who read in Spanish but whose level of English oral skills is too low to attempt reading. For those students we recommend (1) continued Spanish reading, and (2) intensive

instruction in English as a Second Language without an emphasis on reading. Although our goal is to introduce English reading as soon as the students have adequate oral skills to make sense of their activity, we agree with those, including the school district's reading consultant, who recommend a good oral English base before beginning English reading instruction for students of the kind we featured in our interventions.

Our research allows us to qualify this recommendation in what we think is a useful way. It is not sufficient to assess the student's oral English outside of the reading context and assume that when an adequate level of proficiency is reached, no problems will turn up in the reading situation. Rather, we must recognize the extra burden put on the speaker by the demands of speaking English in the context of answering questions from text. The use of flexible bilingual support for English reading is a useful bridge to full competence in English reading and speaking.

We have also considered a third situation. This involves students who are Spanish-monolinguals but who cannot read in either language. We believe that reading lessons should be initiated in Spanish only, and (2) that they receive intensive instruction in English as a second language. Starting them in Spanish reading capitalizes on the oral language competence they have already developed. By the time they acquire rudimentary English language skills as a result of ESL instruction, they will be also far enough along in Spanish reading to build on those skills for English reading. In other words, we recommend a strategy that first makes these students equivalent to the students who participated in our study, because we have demonstrated that they can profit from combining the social and intellectual resources available in

both languages.

There is also a fourth possibility involving students that may be considered non-fluent in either language. That is, students who have not achieved a high level of Spanish or English proficiency. Although we did not encounter any such students in our work, we believe that the same ideas can be applied to organize optimal instructional arrangements. Needed is a way to readily take advantage of the existing resources in both the students and the school. Here we would recommend bilingual reading instruction to be able to utilize the children's verbal abilities in both languages.

Implications for staffing

It should be kept in mind that in our scheme the higher order goal of reading is comprehension, regardless of the language used. The text can be in English, but discussion of the text to teach comprehension can be in either language, or a combination of both, whatever is needed to communicate meaning. Decisions on when to switch languages have to be made *in situ*, as the teacher monitors understanding of the text. Concurrently, the students should be receiving ESL training that is integrated with the content of reading.

These procedures help us to pinpoint the role of bilingual staffing. Our interventions require bilingual facility on the part of the person taking the teaching role in the reading lessons. Clearly, the teacher's ability to monitor comprehension and make necessary curricular adjustments is severely curtailed in English monolingual situations. It would be best for all concerned if trained bilingual teachers were in charge of the reading. But bilingual aides, assisted by the teacher, could also function in this capacity (cf.,

McConnell, 1981). Since most school districts with student populations like those we focused on usually employ bilingual aides to assist in the classroom (many states require the presence of bilingual staff by law), this recommendation should pose no added difficulties. Such aides are likely to be present already.

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